METHOD AND APPARATUS FOR ENCRYPTING AND DECRYPTING TIME DOMAIN SIGNALS

ABSTRACT OF THE DISCLOSURE

Time sequential information signals, such as color video signals having a line timing reference and an active video portion, are encrypted by time shifting the active video signal portion towards and away from the line timing reference signal in psuedo-random fashion prior to broadcasting or recording on tape or disk and transmittal to the user. The signals are decrypted by an inverse time shifting technique. By limiting the amount of time shifting between lines, potential signal degradation for color video signals is minimized, and drop out compensation processing is minimally affected, so that the color resolution and picture quality are substantially unaffected.

Various levels of security are attainable, ranging from a simple security technique in which the intra field time shifting information is encoded along with the active video to a relatively sophisticated, high security level in which the number of decryption signal processing attempts and the time period within which decryption processing is permitted are limited.

(Figures 1 and 2)